UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application N .	Applicant(s)
	09/835,839	VANGE ET AL.
Offic Action Summary	Examiner	Art Unit
	George C. Neurauter, Jr.	2143

-- The MAILING DATE of this communicati n appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 April 2001_.

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-29_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-29_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-29 are currently presented and have been examined.

Claim Objections

Claims 12 are objected to because of the following

informalities:

Claim 12 is missing an "and" from the end of the claim

sentence.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35

U.S.C. 112:

> The specification shall conclude with one or more claims particularly
> pointing out and distinctly claiming the subject matter which the applicant
> regards as his invention.

Claims 1-12, 17, and 22 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claim 1 recites the limitation "...wherein at least some of

the cached resources are selected both in response to the

request and explicitly selected to prevent future client

requests from being communicated to the server". It is unclear

as to when the resources are selected or what element does the

selecting.

Claims 2-12 are also indefinite since they depend from an indefinite claim.

Claim 17 recites the limitation "...partially based upon the a server assigned priority." There is insufficient antecedent basis for this limitation in the claim. Also, in view of claims 15 and 16, it is unclear as to how the server assigned priority is associated with the client attribute.

Claim 22 recites the limitation "the client applications". There is insufficient antecedent basis for this limitation in the claim.

Claim Interpretation

The elements "front end" and "back end" defined on page 15, lines 2-3 and 27-29 respectively in the specification and recited in claims 3-8, 18-21 and 24-26 will be given their broadest reasonable interpretation and will be interpreted by the Examiner, in the case of the front end, an access point of client side communications and, in the case of the back end, an apparatus that processes and directs communication to servers that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or
a foreign country or in public use or on sale in this country, more than one
year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published
under section 122(b), by another filed in the United States before the
invention by the applicant for patent or (2) a patent granted on an
application for patent by another filed in the United States before the
invention by the applicant for patent, except that an international
application filed under the treaty defined in section 351(a) shall have the
effects for purposes of this subsection of an application filed in the
United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English
language.

2.   Claims 1, 3, and 9-11 are rejected under 35 U.S.C. 102(e)

as being anticipated by US Patent 6 282 542 B1 to Carneal et al.

Regarding claim 1, Carneal discloses a system for caching

network resources comprising:

a server having network resources stored thereon; ("web

server"; column 3, line 10-column 4, line 6, specifically column

3, lines 19-20)

a client generating requests for the network resources;

("client" or "browser"; column 3, line 10-column 4, line 6,

specifically column 3, lines 14-16 and 19-20)

an intermediary server configured to receive requests from

the client and retrieve the network resources from the server;

("distributed proxy server"; column 3, line 10-column 4, line 6,

specifically column 3, lines 14-20)

a cache controlled by the intermediary server for caching

selected network resources, wherein the cached resources include

more than the requested resources and wherein at least some of

the cached resources are selected both in response to the

request and explicitly selected to prevent future client

requests from being communicated to the server. (column 3, line

10-column 4, line 6, specifically column 3, lines 26-36)

Regarding claim 2, Carneal discloses the system of claim 1

wherein the cache includes only a home page for at least one web

site. (column 6, lines 16-35, specifically lines 29-35)

Regarding claim 3, Carneal discloses the system of claim 1

wherein the intermediary server comprises a front-end computer

("access point component") and a back-end computer ("satellite

gateway component. (column 3, line 10-column 4, line 6,

specifically column 3, lines 14-20)

Regarding claim 4, Carneal discloses the system of claim 3

wherein both the front-end computer and the back-end computer

implement a cache data structure. (column 8, lines 1-3)

Regarding claim 5, Carneal discloses the system of claim 4

further comprising: a first page cached on the front-end

computer cache, the first page associated with a plurality of

other resources, wherein the other resources are cached on the

back-end computer cache. (column 8, lines 1-3 and 7-15)

Regarding claim 6, Carneal discloses the system of claim 5

wherein the association is explicit in links within the first

page that point to the secondary resources. (column 1, lines 25-

27; column 8, lines 14-15)

Regarding claim 8, Carneal discloses the system of claim 5,

wherein the association is explicitly defined by the site owner.

(column 1, lines 25-27; column 8, lines 14-15)

Regarding claim 9, Carneal discloses the system of claim 1

wherein the cache is configured to store web pages and elements

thereof. (column 3, line 10-column 4, line 6, specifically

column 4, lines 2-6)

Regarding claim 10, Carneal discloses the system of claim 1

wherein the cache is configured to store program constructs

comprising software code, applets, scripts, active controls.

(column 8, lines 7-15)

Regarding claim 11, Carneal discloses the system of claim 1

wherein the cache is configured to store files. (column 8, lines

7-15)

3.   Claims 14-17 are rejected under 35 U.S.C. 102(e) as being

anticipated by US Patent 6 542 964 B1 to Scharber.

Regarding claim 14, Scharber discloses a method for caching

network data comprising:

communicating request-response traffic between two or more

network-connected computing appliances; implementing a cache

("ICDS") coupled to the request-response traffic; (column 6,

line 67-column 7, line 3) and

selectively placing data from the request-response traffic

into the cache at least partially based upon attributes of the

client and/or server associated with the request-response

traffic. (column 7, lines 11-17; column 7, line 60-column 8,

line 7)

Regarding claim 15, Scharber discloses the method of claim

14 further comprising associating client attributes with the

request-response traffic, the client attributes associating a

relative priority with the traffic, wherein the act of

selectively placing is at least partially based upon the client

attribute. (column 7, lines 11-17, specifically "traffic

deterministic")

Regarding claim 16, Scharber discloses the method of claim

14 further comprising associating client attributes with the

request-response traffic, the client attributes associating a

service level with the traffic, wherein the act of selectively

placing is at least partially based upon the client attribute.

(column 7, lines 11-17, specifically "class of service")

Regarding claim 17, Scharber discloses the method of claim

14 further comprising associating client attributes with the

request-response traffic, the client attributes associating a

service level with the traffic, wherein the act of selectively

placing is at least partially based upon the a server assigned

priority. (column 7, lines 11-17, specifically "class of

service" and "site deterministic")

4.   Claims 13 and 18-26 are rejected under 35 U.S.C. 102(e) as

being anticipated by US Patent 6 438 652 B1 to Jordan et al.

Regarding claim 13, Jordan discloses a cache system

comprising:

a communication network; ("world Wide Web"; column 1, line

13)

a plurality of network-connected intermediary servers each

having an interface for receiving client requests for network

resources, each intermediary server having a cache associated

therewith; (column 1, lines 13-column 2, line 3, specifically

column 1, lines 15-17 and 34-36)

communication channels linking each intermediary server

with a set of neighboring intermediary servers for exchanging

cache contents amongst the intermediary servers. (column 4,

lines 45-52)

Regarding claim 18, Jordan discloses a cache system

comprising:

a front-end server ("cooperating cache server")

implementing a first cache and configured to receive client

requests ("direct request") and generate responses to the client

requests; (column 1, lines 13-column 2, line 3, specifically

column 1, lines 15-17, 34-36 and 38-39)

a back-end server implementing a second cache and

configured to receive requests from the front-end server

("forwarded requests") and generate responses to the front-end

server; (column 1, lines 13-column 2, line 3, specifically

column 1, lines 15-17, 34-36, and 40-42)

an origin server having content stored thereon;

("originating web server"; (column 1, lines 13-column 2, line 3,

specifically column 1, lines 15-17)

a communication channel linking the front-end server and

the back-end server; ("world Wide Web"; column 1, lines 13-

column 2, line 3, specifically column 1, line 13)

a cache management mechanism in communication with the

front-end computer and the back-end computer to selectively fill

the first and second caches. (column 4, lines 45-52)

Regarding claim 19, Jordan discloses the cache system of claim 18 wherein the cache management mechanism comprises a process within the front-end server for receiving responses to client requests and placing the received responses in the cache. (column 7, lines 23-35, specifically lines 23-29)

Regarding claim 20, Jordan discloses the cache system of claim 18 wherein the cache management mechanism comprises a process within the front-end server for generating, sua sponte, requests and placing the responses to the sua sponte requests in the cache. (column 7, lines 23-35, specifically lines 32-35)

Regarding claim 21, Jordan discloses the cache system of claim 18 wherein the cache management mechanism comprises processes for populating one cache with contents from another cache. (column 4, lines 45-52)

Regarding claim 22, Jordan discloses a system for caching network resources comprising:

a plurality of intermediary servers ("proxy cache servers") configured to receive client requests and retrieve request-specified network resources; (column 1, lines 13-column 2, line 3, specifically column 1, lines 15-17)

a cache implemented within each of the intermediary servers and configured to store selected network resources; (column 1,

lines 13-column 2, line 3, specifically column 1, lines 15-17
and 34-36)

a resolver mechanism for supplying a network address of the
intermediary server to the client applications, wherein the
resolver mechanism dynamically selects a particular intermediary
server from amongst the plurality of intermediary servers based
at least in part on the content of each intermediary server's
cache. (column 1, lines 13-column 2, line 3, specifically column
1, lines 55-59)

Regarding claim 23, Jordan discloses the system of claim 22
further comprising:

a redirection mechanism within a first of the intermediary
servers configured to redirect a client request from the first
intermediary server to a second of the intermediary servers
based at least in part on the content of the first and second
intermediary server's caches. (column 1, lines 13-column 2, line
3, specifically column 1, lines 34-42)

Regarding claim 24, Jordan discloses a cache system
comprising:

a first front-end server ("cooperating cache server")
implementing a first cache and configured to receive client
requests ("direct request") and generate responses to the client

requests; column 1, lines 13-column 2, line 3, specifically

column 1, lines 15-17, 34-36 and 38-39)

a second front-end server implementing a second cache

("cooperating cache server") and configured to receive client

requests ("direct request") and generate responses to the client

requests; column 1, lines 13-column 2, line 3, specifically

column 1, lines 15-17, 34-36 and 38-39)

an origin server having content stored thereon; (column 1,

lines 13-column 2, line 3, specifically column 1, lines 15-17)

a communication channel linking the first front-end server

and the second front-end server; ("World Wide Web"; column 1,

lines 13-column 2, line 3, specifically column 1, line 13)

a cache management mechanism in communication with the

first and second front-end computers to selectively fill the

second cache in response to a client request received by the

first front-end server. (column 4, lines 45-52)

Regarding claim 25, Jordan discloses the cache system of

claim 24 wherein the cache management mechanism selectively

updates the second cache based upon knowledge that subsequent

client requests will be directed to the second front-end server.

(column 4, lines 6-19)

Regarding claim 26, Jordan discloses the cache system of

claim 24 wherein the cache management mechanism selectively

updates the second cache based upon anticipation that subsequent

client requests will be directed to the second front-end server.

(column 4, lines 6-19)

5.   Claims 27-28 are rejected under 35 U.S.C. 102(b) as being

anticipated by "Speculative Data Dissemination and Service"

("Speculative").

Regarding claim 27, "Speculative" discloses a method of

speculatively caching Internet content comprising:

receiving a current request for specified content;

obtaining the specified content in response to the current

request; and speculatively caching data in addition to the

specified content. (page 1, section 1 "Introduction", right

column, paragraph beginning "Our first technique (introduced in

[2])...", sentence beginning "Our second technique relies

on...")

Regarding claim 28, "Speculative" discloses the method of

claim 27 wherein the act of speculatively caching data comprises

determining data that is likely to be requested subsequent to

the current request. (page 1, section 1 "Introduction", right

column, paragraph beginning "Our first technique (introduced in

[2])...", sentence beginning "Our second technique relies

on...")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere*

Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and
      the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent
      art.
4.   Considering objective evidence present in the
      application indicating obviousness or nonobviousness.

This application currently names joint inventors. In

considering patentability of the claims under 35 U.S.C. 103(a),

the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered

therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that

was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

6.   Claim 7 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Carneal in view of Scharber.

Regarding claim 7, Carneal discloses the system of claim 5.

Carneal does not expressly disclose wherein the association

is implicit in user access patterns, however, Scharber does

disclose this limitation (column 7, line 60-column 8, line 7)

It would have been obvious to one of ordinary skill in the

art at the time the invention was made to combine the teachings

of these references since Scharber discloses that associating

resources implicitly by user access patterns enables the

associated content to be replicated among other cache servers in

order to provide a faster user response time (column 8, lines 3-

7). In view of the specific advantages disclosed in Scharber

regarding implicit association through user access patterns and

that both references are directed to systems of caching network

resources through intermediary server caches, one of ordinary

skill would have been motivated to combine these references

based on the specific advantages disclosed in Scharber and would

have been directed to the references and considered them to be

analogous to one another based on their related fields of

endeavor.

7.   Claim 12 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Carneal et al in view of US Patent 4 370 710 A

to Kroft.

Regarding claim 12, Carneal discloses the system of claim

1.

Carneal does not expressly disclose the system further

comprising means within the intermediary server for merging a

current request for network resources that are not in the cache

with a prior issued pending request for the same network

resources, however, Kroft does disclose this limitation (column

2, line 53-column 3, line 5).

It would have been obvious to one of ordinary skill in the

art at the time the invention was made to combine the teachings

of these references since Kroft discloses that merging current

requests for resources that are not in the cache with prior

issued requests enables multiple current requests to be handled

by the cache at an almost continuous rate (Abstract, last

sentence). In view of the specific advantages disclosed

regarding Kroft and that both references are directed to the

caching of data in a system, one of ordinary skill would have

been motivated to combine these references based on the specific

advantages disclosed and would have been directed to the

references and considered them to be analogous to one another

based on their related fields of endeavor.

8.   Claim 29 rejected under 35 U.S.C. 103(a) as being

unpatentable over "Speculative".

Regarding claim 29, "Speculative" discloses the method of

claim 27.

"Speculative" does not expressly disclose wherein the act

of speculatively caching data comprises determining an ability

for a server to respond to subsequent requests for the data and

speculatively caching data when it is determined that the

server's ability to respond to subsequent requests is less than

a preselected level, however, "Speculative" does disclose that

the advantage of speculatively caching data is to raise the

server's ability to respond to subsequent requests (page 1,

section 1 "Introduction", left column, paragraph beginning

"Current research in automated replication...", sentence

beginning "In that respect, we present two...").

It would have been obvious to one of ordinary skill in the

art at the time the invention was made to modify "Speculative"

to use a preselected level to speculatively cache data based on

a server's ability to respond since "Speculative" contemplates

that servers are enabled to control its ability to respond to

subsequent requests through the use of the invention who are in

a better position to determine its ability to respond (page 1,

section 1 "Introduction", left column, paragraph beginning

"Current research in automated replication...", sentence

beginning "In this paper we offer a more..."). In view of the

specific advantages and disclosures above in "Speculative", one

of ordinary skill would have appreciated these advantages and

found it obvious to have servers use a mechanism to control the

initiation speculative caching of data to raise its ability to

respond to subsequent requests based on the contemplations

disclosed in "Speculative" of server control of the speculative

caching.

Conclusion

The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure.

US Patent 4 455 602 to Baxter et al;

US Patent 5 758 178 to Lesartre;

US Patent 5 878 223 to Becker et al;

US Patent 6 070 191 to Narendran et al;

US Patent 6 098 096 to Tsirigotis et al;

US Patent 6 108 703 to Leighton et al;

US Patent 6 154 767 to Altschuler et al;

US Patent 6 272 492 to Kay;

US Patent 6 385 641 to Jiang et al;

US Patent 6 389 462 to Cohen et al;

US Patent 6 609 159 to Dukach et al;

A. Bestavros, "Speculative Data Dissemination and Service to Reduce Server Load, Network Traffic and Service Time for Distributed Information Systems", Proceedings of ICDE'96: The 1996 International Conference on Data Engineering, March 1996, 8 pages.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be

obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through

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Business Center (EBC) at 866-217-9197 (toll-free).

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